REMARKS

Claims 1-9 and 11-14 remain pending in the application. Claims 11, 12 and 14 have been amended herein.

Claims 11, 12 and 14 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The Examiner noted that it is unclear what "controller" is being referred to in these claims. In response, claims 11, 12 and 14 have been amended to explicitly recite "the central controller." Applicants note that amended claims 11, 12 and 14 are in compliance with 35 U.S.C. 112. Furthermore, since the Examiner indicated that claims 11 and 12 would be allowable if amended to overcome the rejection under 35 U.S.C. 112, second paragraph, Applicants respectfully submit that claims 11 and 12 are now in allowable condition.

The Examiner objected to claims 1, 8 and 13 because "SPS is an acronym that is not defined in the specification or in the claims." In response, Applicants note that page 4 of the specification was amended in the 12/16/02 Amendment (which was resubmitted with RCE dated 1/21/03) to specifically recite that SPS is "programmable logic controller." (See 12/16/02 Amendment, p. 6: "an SPS (a programmable logic controller) program 49). Since "SPS" has been shown to be clearly defined in the specification, the objection to claims 1, 8 and 13 has been overcome. Furthermore, since the Examiner indicated that claims 1-9 would be allowed if the claim objections were overcome, Applicants respectfully submit that the claims 1-9 are now in allowable condition.

Claims 13 and 14 have been rejected under 35 USC §102(e) as being anticipated by Klein (U.S. Patent No. 6,279,125, hereinafter "Klein"). Applicants respectfully submit that the rejection should be withdrawn for at least the following reasons.

5

Independent claim 13 recites, in relevant parts, a "safety device for a stored-program control coupling a computer bus system with a peripheral bus system" to which a peripheral is connected, the safety device comprising: "a **central** controller for exchanging data with the stored-program control, the stored-program control continually executing an SPS program on a real-time operating system, the stored-program control exchanging data, via the peripheral bus system, with a peripheral to be controlled, wherein **a bus controller controls** a data transport via the peripheral bus system; and an interface for receiving at least one control signal forwarded to the stored-program control via the **central** controller."

To anticipate a claim under § 102(e), a single prior art reference must identically disclose each and every claim element. See Lindeman Machinenfabrik v. American Hoist and Derrick, 730 F.2d 1452, 1458 (Fed. Cir. 1984). If any claimed element is absent from a prior art reference, it cannot anticipate the claim. See Rowe v. Dror, 112 F.3d 473, 478 (Fed. Cir. 1997). Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claim invention, arranged exactly as in the claim. Lindeman, 703 F.2d 1458 (Emphasis added). The identical invention must be shown in as complete detail as is contained in the claim. M.P.E.P. § 2131. Additionally, not only must each of the claim limitations be identically disclosed, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed invention, namely the inventions of the rejected claims, as discussed above. See Akzo, N.V. v. U.S.I.T.C., 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986). To the extent that the Examiner may be relying on the doctrine of inherent disclosure for the anticipation rejection, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art." See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

In support of the rejection of claim 13, the Examiner contends that Fig. 1 of Klein "discloses a safety device for a stored-program control (CPU) coupling a

6

computer bus system (CPU bus) with a peripheral bus system, . . . [and] a central controller (system controller) for exchanging data with the stored-program control." The Examiner further contends that in column 4, lines 1-10, "Klein discloses an operating system with user applications running on it that are capable of accessing peripherals," which the Examiner equates with the claimed feature that "the stored-program control continually executing an SPS program on a real-time operating system, the stored-program control exchanging data, via the peripheral bus system, with a peripheral to be controlled."

Initially, Applicants note that Klein merely discloses a conventional PC with diagnostic arrangement. Although the Examiner equates the CPU of Klein with the Applicants' claimed "stored-program control," the CPU is simply not equivalent to the claimed "stored-program control continually executing an SPS program," which SPS program is clearly defined in the specification as "programmable logic controller" program (see discussion above in connection with objection to claims 1, 8 and 13), since the term CPU simply does not implicate the use of a programmable logic controller.

Equally fundamental is the distinction that nothing in Klein actually discloses "a **central** controller for exchanging data with the stored-program control, the stored-program control continually executing an SPS program on a real-time operating system." Column 4, lines 1-10 of Klein merely discusses an operating system, such as Windows, which controls computer peripherals and execute user applications; the user applications are noted as being commercially available software programs. The arrangement described in Klein simply does not suggest a real-time operating system running an SPS (a programmable logic controller) program, since a programmable logic controller program, by definition, is not a commercially available software, but an individualized program. Applicants note that a PC with a real-time operating software and an SPS (a programmable logic controller) program which computes real-time data is a customized arrangement, i.e.,

a PC must be modified with additional hardware and/or software to implement a real-time-based programmable logic controller.

Independent of the above, Klein does not disclose the claimed feature of "an interface for receiving at least one control signal forwarded to the stored-program control via the central controller," as recited in claim 13. In Fig. 2, Klein shows an application program interface which is an interface between the application and the operating software (API) to access drivers, for example. (Col. 4, lines 30-45). In other words, this API is a pure software interface. However, the claimed feature of "an interface for receiving at least one control signal forwarded to the stored-program control via the central controller" necessarily implicates an **external control signal** forwarded to the stored-program control via the central controller. (See, e.g., Fig. 1 of the application). In contrast to the claimed invention, no external control signals can be received by the arrangement disclosed in Klein, since the interface layer is purely a virtual layer without any external access arrangements.

For the foregoing reasons, Klein does not anticipate claim 13 or its dependent claim 14. Independently, regarding the features of claim 14, Fig. 1 of Klein does not disclose a circuit board; instead, Fig. 1 merely shows a block diagram of the computer components.
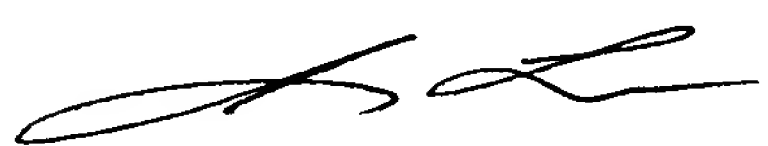
CONCLUSION

In light of the above discussion, Applicants respectfully submit that the present application is in all aspects in allowable condition, and earnestly solicit favorable reconsideration and early issuance of a Notice of Allowance.

The Examiner is invited to contact the undersigned to discuss any matter concerning this application. The Office is authorized to charge the $1,020 fee for the three-month extension of time to respond to the February 18, 2005 Office Action, as

well as any other requires fees under 37 C.F.R. §§1.16 or 1.17 related to this communication, to Deposit Account No. 11-0600.

Respectfully submitted,

_(R. No. 36,197)_

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9